

REMARKS

This application has been reviewed in light of the Office Action mailed May 24, 2010. Reconsideration of this application in view of the below remarks is respectfully requested. Claims 1 and 3 are pending in the application with Claim 1 being in independent form. By the present amendment, Claim 1, FIG. 3 and the specification have been amended to clarify the features of the invention. Therefore, no new subject matter is introduced into the disclosure by way of the present amendment.

Initially, Applicants thank the Examiner for granting a telephone interview on August 19, 2010 to discuss the pending rejections.

In the interview, Applicants' representative pointed out that the resultant signal shown in FIG. 3 is attenuated by the sinusoidal function. The sinusoidal function applied to the signal shown in FIG. 2 is representatively shown by way of the amplitude peaks in the resultant signal in FIG. 3. One of ordinary skill in the art would understand what the sinusoidal function is from FIG. 2 and 3 and a reading of the specification. Accordingly, Applicants proposed that an amended FIG. 3, having a dotted line representing the sinusoidal function, would overcome the objection to the drawings.

Amended FIG. 3 is submitted herein on replacement drawing sheet 2. Also amendment to the specification is submitted to identify the sinusoidal function by reference numeral 302. (See: enclosed amended paragraph beginning on page 4, line 17). No new subject matter is introduced into the disclosure by way of the amendment to the specification and drawings, because the amendments make explicit what was implicitly understood by one of ordinary skill in the art. Therefore, Applicants respectfully request withdrawal of the objection with respect to the drawings.

Moreover, it was noted in the interview that the specification as filed contained a typographical error on page 4, line 25. Specifically, reference numeral 300 was inadvertently omitted from the clause "...locally to zero at the centre point of the burst." The clause should properly read: "...locally to zero at the centre point of the burst 300." It is believed that inclusion of reference numeral 300, as well as the amended FIG. 3, assists in clarifying the meaning of "zero crossing" with respect to the claims.

Specifically, Claim 1 was rejected for failing to comply with the enablement requirement, because it was alleged that window functions do not cross zero, but rather values outside the window are zero. In amended Claim 1, the term "window" has been removed to avoid confusion with respect to the purpose and operation of the sinusoidal function with respect to the received signal. As described in the specification, and shown in the amended drawings, the sinusoidal function is applied to a received signal such that the zero crossing of the sinusoidal function coincides with the regular burst of unwanted signal. The sinusoidal function attenuates the amplitude of the received signal in order to reduce the regular burst of unwanted signal to zero without a loss of the wanted signal. Therefore, as amended, Claim 1 is enabled.

With respect to the features recited in Claim 3, Applicants' specification discloses that if, as discussed in the example of FIGS. 4 and 5, peaks in the transformed signal have been split into two sub-peaks, a simple algorithm may be executed to restore the peaks to an approximation of their original form, for example through the use of standard modulation theory for the analysis of the effect of applying a defined amplitude weighting to a signal and knowledge of the frequency of that signal, obtained from the known repetition rate of the interference bursts on the original signal. (See: page 5, lines 19 – 27). It is believed that the cited passage in Applicants' specification provides adequate enabling description for one of ordinary skill in the

art to properly implement the algorithm to restore the shape of peaks in the transformed signal to an approximation of their form in the absence of said regular bursts of unwanted, as recited in Claim 3.

Therefore, Claims 1 and 3 are believed to be in compliance with 35 U.S.C. § 112, first and second paragraphs. Accordingly, Applicants respectfully request withdrawal of the rejection with respect to Claims 1 and 3 under 35 U.S.C. § 112, first and second paragraphs.

Furthermore, regarding the rejection of Claim 1 under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Patent No. 5,109,417 issued to Fielder, it was argued that Fielder fails to properly disclose Applicants' generation of a time domain sinusoidal function using an established timing characteristics, the time domain sinusoidal function having a zero crossing substantially coinciding with the position of each of the regular bursts of unwanted signal, as recited in Claim 1. Specifically, Fielder discloses a windowing function (See FIG. 6c), which produces the signal shown in FIG. 6d when applied to a signal (FIG. 6b). It was noted in the interview that Fielder discloses that the windowing function modifies the signal shown in FIG. 6b such that "samples near the block edges are close to zero". Hence, the window function disclosed in Fielder does not have a zero crossing.

Additionally, all samples beyond the block edge are attenuated to a value "close to zero". In contrast Applicants' recited sinusoidal function is adapted to selectively reduce the amplitude of regular bursts of unwanted signal to zero relative to other elements of the received signal, however all the remaining samples in the received signal are still present after the sinusoidal function is applied to the received signal. Moreover, the windowing function shown in FIG. 6c is not sinusoidal at all, but rather appears to have asymptotic ends with a central portion

that remains at a maximum value (i.e., 1) for an extended period of time. Thus the function disclosed in Fielder is not at all similar to a sinusoidal function.

Therefore, Claim 1 is believed to be allowable over Fielder for at least the reasons presented above. Accordingly, Applicants respectfully request withdrawal of the rejection with respect to Claim 1 under 35 U.S.C. § 103(a) over Fielder.

Regarding the rejection of Claim 3 under 35 U.S.C. § 103(a) as allegedly obvious over Fielder in view of U.S. Patent No. 3,754,101 issued to Daspit, as shown above Fielder fails to disclose or suggest "...generating a time domain sinusoidal function using said established timing characteristics, said time domain sinusoidal function having a zero crossing coinciding with the position of each of the regular bursts of unwanted signal; and applying the generated sinusoidal function to said signal portion to selectively reduce the amplitude of said regular bursts of unwanted signal relative to other elements of said received signal in an output signal..." as recited in amended independent Claim 1. Daspit, taken alone or in any proper combination with Fielder, fails to overcome the deficiencies identified above with respect to Fielder. Therefore, since Claim 3 depends from independent Claim, Claim 3 is believed to be allowable over the cited prior art references for at least the reasons presented above. Accordingly, Applicants respectfully request withdrawal of the rejection with respect to Claim 3 under 35 U.S.C. § 103(a) over Fielder in view of Daspit.

CONCLUSIONS

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1 and 3 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Applicant's undersigned attorney at the number indicated below.

Respectfully submitted,



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